MATERNAL AND CHILD HEALTH SERVICES
TERRITORY OF HAWAII

Postwar Planning Committees on Health
Public Health Committee
Chamber of Commerce of Honolulu

1948

Honolulu. Chamber of Commerce. Public Health Committee

RECOMMENDATIONS

OF THE

COMMITTEES ON MATERNAL AND CHILD HEALTH

POSTWAR HEALTH PLANNING COMMITTEES

PUBLIC HEALTH COMMITTEE

CHAMBER OF COMMERCE OF HONOLULU

January, 1948

R. M. Nebelung, DR. P. H.

EXECUTIVE DIRECTOR, PUBLIC HEALTH FUND
CHAMBER OF COMMERCE OF HONOLULU

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FOREWORD

This postwar planning study with its recommendations in the field of maternal and child health has been divided into nine different categories because of the wide field which the study embodies. A good many persons among those who are specializing in these fields of work in the Territory gave many hours of their time towards the completion of the report. Its publication indicates that organized community effort on the part of specialists working in the health field can develop a critical study and plan quite as comprehensive and worthwhile as one done by an expert brought to the Territory from an outside area.

It is earnestly to be desired that the report herein published covering the field of maternal and child health will be actively utilized by agencies and individuals working in this field and that this will not be just another report which is glanced at and placed on file. The recommendations of the committee cannot, of course, all be put into effect immediately and practical considerations, such as available funds and personnel as well as new discoveries and developments, will undoubtedly prevent some of the recommendations from ever being effectuated. However, continuous referral to this study by those working in this particular area of public health should definitely bring about improved service to mothers and children in our Territory.

Charles L. Wilbar, Jr., M. D.
Chairman, Steering Committee

MATERNAL AND CHILD HEALTH

Introduction

Maternal and child health is both a complex subject and an important one. This fact, true as it is of the United States mainland, is especially meaningful in the Territory of Hawaii.

This importance is a result primarily of the fact that maternal and child health underlies our entire social structure. Psychiatrists have frequently pointed the extreme significance of the first five or six years to the later psychological development of the child. A similar observation might be made regarding physical development. It is impossible for a nation to disregard the bodily and mental health of its youth and still remain strong. The necessity of maintaining adequate maternal health and welfare follows as an inevitable corollary of this fact. The care and instruction of the mother are prerequisite to the well-being of the infant. Both are essential to national advancement.

A comparison of maternal and child health in the Islands and on the mainland further emphasizes the importance of this problem. Generally speaking, the Territory is fortunate. The latest comparable figures indicate a local infant death rate about 25 per cent below the national rate, and a maternal death rate approximately one-sixth better than the U. S. figure. [1] In certain aspects of maternal and child health, however, Hawaii has long lagged behind the mainland. To name but one, deaths from prematurity in the Territory were consistently more numerous (per 1,000 live births) than on the mainland. Such data indicate the need for special effort along certain lines.

The field is a broad one. A correspondingly comprehensive program, either already in existence or suggested for future development, is outlined in this report. Provision is made for the care and instruction of infant and parents, from the moment there is evidence of pregnancy until the child enters school. Aspects of the field given special attention include:

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[1] Recent figures (per 1,000 live births) follow:

	Year	U. S.	T. H.
Deaths under 1 year	1935	55.7	68
	1940	47.0	45
	1943	40.4	37
	1944	39.8	30
Maternal deaths	1944	2.3	1.9
	1945	Not available	1.5
	1946	Not available	1.5

Source: <u>Statistical Abstract of the United States, 1946</u>; and <u>Annual Report of the Board of Health, Territory of Hawaii</u> (1946).

Maternal health conferences and prenatal and postpartum care. As soon as the mother is discovered pregnant, proper care and instruction must be instituted. Every effort is made to preserve the health of both mother and child. This care continues for awhile after delivery.

Parents' classes. Parents and prospective parents are instructed by these classes in the best methods of physical and mental health, both for themselves and their infants. Fathers as well as mothers are reached.

Prematurity. Prematurity is the greatest single cause of infant deaths. [1] Infants who survive premature birth require special facilities. The subject is thus one deserving considerable attention.

Midwifery. The number of midwives in the Territory is steadily decreasing, but they are sufficiently important to require close supervision.

Child health conferences and supervision. These conferences attempt to bridge the gap between birth and the beginning of school, a period when the child needs careful guidance in problems of mental and physical health.

Health care of dependent children. Children in foster homes or institutions frequently receive inadequate medical care. Attention also must be paid to youthful delinquents, who are legally regarded as dependent children.

Health aspects of adoption. Matching the right child with the right adoptive parents requires careful regard for matters of physical and mental health. These issues are basic to successful adoption, and necessitate certain administrative and educational measures.

Children handicapped by heart disease. Heart disease among children constitutes a major direct or indirect cause of death in the Islands. Much tragedy in later life can be prevented by proper attention to cardiac troubles in childhood.

Women in industry. Too frequently, the pregnant working woman either endangers her health or faces dismissal. A sweeping revision of certain attitudes and policies is indicated to remove this problem.

Features of the present situation and specific recommendations for improvement are summarized in the following outline. The same information is given in much greater detail in the narrative report for each topic.

F. J. Pinkerton, M.D., Chairman
Public Health Committee
Chamber of Commerce of Honolulu

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[1] Premature birth caused 37.8 per cent of reported infant deaths during the fiscal year 1946, according to the Annual Report of the Board of Health, Territory of Hawaii.

PUBLICATION PROCEDURES AND RESPONSIBILITY FOR REPORTS

Reports of the postwar planning health committees are prepared by the several study groups with the aid of the Public Health Committee staff of the Chamber of Commerce. Staff members meet regularly with the groups during the course of study.

A tentative final report in outline form is submitted to the Steering Committee for review. The study group chairman then meets with the Steering Committee which advises, offers suggestions regarding changes, and then refers the project back to the study group for further consideration. The final revision is resubmitted to the Steering Committee for approval both in outline and narrative forms. The purpose of the outline is to enable anyone to appraise readily the present status of a particular program and the recommendations of the study committee without having to peruse the entire report. Each finally revised report will include any dissenting opinions of the committee members which they may request be published. Reports are issued as the work of the particular committee preparing them. Individual recommendations may be considered to represent the view of the committee as a whole.

R. G. Nebelung, Dr. P. H.
Executive Director
Public Health Committee

GEOGRAPHICAL NOTE

The Territory of Hawaii consists of eight major islands and a number of lesser ones. The two largest cities are Honolulu, on Oahu, and Hilo, on Hawaii. There are five counties, but Kalawao (consisting of Kalaupapa Leper Settlement, on the Island of Molokai) has no local government. These geographical units are listed in the following table: 1/

Unit	Land Area in Square Miles	Population	
		1940	1946
City and County of Honolulu	603	258,256	358,911
Island of Oahu	589	257,664	358,911
Honolulu city	82	179,326	267,710
Rural Oahu	507	78,338	91,201
Palmyra Island	N.A.	32	N.A.
Other minor islands 2/	N.A.	560	N.A.
Hawaii County 3/	4,021	73,276	70,871
Maui County 4/	1,173	55,980	54,610
Island of Maui	728	46,919	44,807
Island of Molokai 4/	259	5,340	6,173
Island of Lanai	141	3,720	3,630
Island of Kahoolawe	45	1	N.A.
Kauai County	623	35,818	35,111
Island of Kauai	551	35,636	34,911
Island of Niihau	72	182	199
Total 5/	6,420	423,330	519,503

1/ Land area and 1940 population from 1940 U.S. Census, 1946 population from Territorial Board of Health estimates for July 1, 1946. The 1946 estimates are taken from two different published sources and in several instances do not add up exactly to the indicated totals.

2/ Not under Territorial jurisdiction, but included for census purposes. A number of minor islands in the Hawaiian chain are under Territorial jurisdiction but are uninhabited.

3/ Coextensive with the Island of Hawaii. Hilo city had a 1940 population of 23,353 (27,922 in 1946).

4/ Including Kalawao County (Kalaupapa Leper Settlement, 14 square miles, population of 446 in 1940 and 386 in 1946).

5/ "Other minor islands" included for 1940.

N.A. Not available.

TABLE OF CONTENTS

OUTLINE OF SUGGESTED RECOMMENDATIONS

Committee on Maternal and Child Health
Postwar Planning Committees for Health

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
I. Legal Status		
A. Maternal health conferences and prenatal and postpartum care.		
1. Chap. 10, Sec. 402, R.L.H. 1945. Enables Territorial Board of Health to match federal aid grants.		
2. Chap. 42, Sec. 2310 and 2312.		
a. Blood samples of pregnant women required.		
b. Reports of blood tests required in reporting births and still-births.		
B. Midwifery		
1. Chap. 35, Sec. 2017, R.L.H. 1945. Regulates issuance and revocation of certificates and permits.		
2. Chap. 6, Sec. 163-164, R.L.H. 1945. Prescribes regulations governing practice.		
C. Child health conferences and supervision. Chap. 10, Sec. 402, R.L.H. 1945. Enables Territorial Board of Health to match federal aid grants.		
D. Health care of dependent children		

Present Situation (Services and Resources	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
1. Chap. 300, Sec. 1231, R.L.H. 1945. Defines "dependency" and "delinquency" of minors. 2. Chap. 300, Sec. 12326, R.L.H. 1945. Provides for medical care, hospitalization, or other institutional treatment at public expense at discretion of the court.	It is recommended that:	It is recommended that:
E. Children handicapped by heart disease. No special legislation for care of cardiac children in the Territory. Such children are covered by the general legislation applying to handicapped or crippled children.		
F. Health aspects of adoption 1. Adoption Chap. 298, Sec. 12271-12276 General provisions 2. Leprosy Chap. 43, Sec. 2436. Provides for care and disposition of non-leprous children born to leprous parents.		Revised legislation to make social and medical investigation mandatory in all adoption procedures be enacted.
G. Women in industry None in the Territory	A study be made of legislation in other parts of the country relating to women in employment and the advisability of developing such legislation to meet the	

Present Situation (Services and Resources)	Suggestions and Recommendations for Immediate Action	Long-range Objectives or Action
	needs of the Territory. The study should be initiated by the Territorial Board of Health and made by a committee composed of representatives from the medical profession, public health, labor, management, and the Territorial Labor Commission.	
II. Facilities A. Maternal health conferences and prenatal and postpartum care. 1. Plantation hospitals 2. Territorial Board of Health centers B. Prematurity 1. Hospital a. Care of premature infants together with full-term new-borns	Larger hospitals maintain separate prematurity nurseries.	
b. New-born nurseries (overcrowded).	Nursery facilities in all hospitals be improved.	
c. Demonstration Premature Infant Center at St. Francis Hospital.		
2. Home Incubators furnished by Territorial Board of Health for care and for use in transferring child to hospital.		
C. Midwifery 1. Two lying-in homes licensed by Territorial Board of Health.		

Present Situation (Services and Resources)	Suggestions and Recommendations for Immediate Action	Suggestions and Recommendations for Long-range Objectives or Action
2. Private homes		It is recommended that:
D. Child health conferences and supervision 1. Two centers conducted independently by plantations. 2. Thirty-eight centers conducted by Board of Health or in cooperation with plantations.		
E. Health care of dependent children City and County Health Department through Department of Public Welfare.		
F. Children handicapped by heart disease. 1. General hospital outpatient department cardiac clinics a. Locations 1) The Queen's 2) St. Francis b. Hours, Wednesday mornings		
2. Rheumatic fever unit of Children's Hospital (partially supported by Bureau of Crippled Children of Territory of Hawaii Board of Health)		Children's Hospital open its own outpatient department, preferably on its present grounds. Support of the rheumatic fever unit eventually be shifted to the public, funds to be raised by popular subscription.
G. Women in industry 1. Large plants Dispensary service (in some cases). 2. Plantations a. Hospitals		

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
b. Same health services for women as for men. 3. General a. Inconsistency of program, policy and attitude. b. Failure to understand special needs of working woman. III. Personnel A. Maternal health conferences and prenatal and post partum care. 1. Plantation physicians 2. Territorial Board of Health physicians and nurses 3. Private physicians B. Parents' classes 1. Sponsoring agencies a. Territorial Board of Health b. American Red Cross 2. Insufficient personnel C. Prematurity 1. Specially trained public health nurses on call 2. Hospital nursery staffs 3. Pediatric consultation and supervision furnished through Bureau of Maternal and Child Health. D. Midwives 1. Number 32 licensed and supervised by Territorial Board of Health in fiscal year 1946 (attending at 4 per cent of all births in the Territory.)		

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
	It is recommended that:	It is recommended that:
2. Training Graduation from approved school of midwifery recognized by Territorial Board of Health		
3. Supervision Directed by Public Health nurses under program of Bureau of Maternal and Child Health	The staff of the Bureau of Public Health Nursing be increased to permit more time to be given to midwife supervision.	Full and adequate medical supervision for all maternity patients be provided. Degree of independent management which occurs under present program of midwifery be discontinued.
E. Child health conferences and supervision 1. Physicians a. Plantation b. Private (part-time) c. Board of Health 2. Nurses a. Plantation b. Board of Health 3. Volunteer workers		
F. Health care of dependent children 1. Government physicians 2. City and County Health Department staff a. Physicians b. Nurses c. Financial investigators		

Present Situation (Services and Resources)	Suggestions and Recommendations	
	Immediate Action	Long-range Objectives or Action
G. Children handicapped by heart disease 1. Physicians practicing internal medicine, 16 a. Island of Oahu, 15 b. Island of Hawaii, 1 2. Physicians practicing pediatrics, 19 a. Island of Oahu, 17 b. Island of Hawaii, 2		It is recommended that:
H. Health aspects of adoption 1. Court of Domestic Relations 2. Child placement agencies a. Territorial Department of Public Welfare b. Child and Family Service c. Catholic Charities		
IV. Programs and special problems		
A. Maternal health conferences and prenatal and postpartum care		The educational program on prenatal care be expanded, especially in the high schools.
1. Monthly conferences on personal hygiene and various aspects of prenatal care 47 maternal health conference centers in the Territory (12 of them on Oahu) in fiscal year 1946, attended by approximately 10 per cent of the pregnant women in the Islands. (Many of the others probably receive prenatal and postpartum care from private		Prenatal and postpartum care and guidance in line with standards of the U.S. Children's Bureau be made available to all mothers regardless of economic level.

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
physicians, who generally maintain acceptable standards in the care they give private maternity cases.) 2. Other services a. Periodic physical examinations b. Chest x-ray c. Blood test for syphilis and smear for gonorrhea d. Postpartum examination six weeks after delivery	It is recommended that:	It is recommended that:
3. Major problem Failure of women to report early or consistently enough in prenatal period or for postpartum examination.	A study of the amount, caliber and effects of prenatal and postpartum care received by all pregnant women be made jointly by the Bureau of Maternal and Child Health and the Medical Society. Maternal health conferences be established in each hospital which operates a maternity service.	
B. Parents' classes 1. Eight series of 8 classes each during fiscal year 1947 on Oahu, chiefly at a. Kapahulu Health Center b. Naval Housing Area, Pearl Harbor		The program be expanded to include classes for individuals of all economic classes.
2. Limitation on scope and number of classes because of insufficient personnel	The Public Health Nursing staff of the Board of Health be increased to permit more time to	

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
	It is recommended that:	
	be devoted to the preparation, conduct and associated services of such classes.	
	The medical profession consider the importance of parents' classes and establishment of a policy of referral of patients.	
	Classes be scheduled at times when more fathers can attend.	
	Qualified groups and organizations cooperate in preparing content material of classes.	
	Classes be established in conjunction with organized adult education channels (University and Department of Public Instruction).	
	Consideration be given to the possibility of including in the content of the classes information on birth-spacing.	
C. Prematurity 1. Mortality and incidence a. During the fiscal year 1946, recording of 129 infant deaths in the Territory from prematurity--38 per cent of total infant deaths.	A statistical survey be made relative to: 1) Comparison of infant deaths with birth factors to determine relationships that do not appear in gross mortality statistics.	

Present Situation (Services and Resources)	Suggestions and Recommendations for Immediate Action	Suggestions and Recommendations for Long-range Objectives or Action
	It is recommended that:	
b. No appreciable improvement of death rate over period of years, constituting a progressively greater portion of total infant deaths (slight improvement after 1945).	2) Analysis of birth weights of all infants. 3) Relationship of prematurity to various factors, such as race, illegitimacy, prenatal supervision, economic level and obstetrical procedures.	
c. Actual incidence and relation to sociological factors unknown.	4) Follow-up study of premature infants for after-effects.	
2. Provisions of special program of Territorial Board of Health		
a. Nursing care for home-born infants.	Special program be continued.	
b. Follow-up home supervision by public health nurse after hospital discharge.		
c. Nursery consultant for training of hospital nursery staffs.		
3. Problems		
a. Home delivery[1]		
1) Inadequate immediate care by unqualified midwives.	The present Bureau of Maternal and Child Health program for training of midwives be intensified.	
2) Slow admission to hospitals (usual assurance of admission to rural hospitals).		
3) Location of incubators in Honolulu, with resulting limiting of use to city area.	Portable incubators be made readily available by the Board of Health to all rural parts of the island.	

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
b. Hospital 1) Insufficient emphasis on readiness for premature births and protective transfer to nursery.	It is recommended that: Private physicians, hospitals and the Board of Health educate the public regarding the value of hospital delivery.	
2) Nursery personnel a) Understaffed b) No special training in the care of premature infants.	A maximum ratio be established of 1 nurse to 8 full-term infants and 1 nurse to 4 premature infants on duty at all times. Nursery staffs receive special training in the care of premature infants.	
3) Poorly established medical routines and policies	Routines and policies should be well established by the medical staff of each hospital.	
4) Inadequate referral by physicians and hospitals for home nursing services, not allowing for proper follow-up supervision after hospital discharge.	Physicians and hospitals refer cases for Public Health Nursing service; and staff of Bureau of Public Health Nursing be enlarged.	
c. Social and financial considerations 1) High expense of hospital care of premature infants both to hospital and family.		

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
	It is recommended that:	
2) Inadequate social case work services available to families of premature infants.	Hospital social service departments be expanded.	
3) Department of Public Welfare policy, not clearly defined regarding: a) Medical indigency of a family when a premature birth occurs. b) Degree to which they will subsidize lengthy hospitalization of such cases.	Prematurity in relation to determination of medical indigency be clarified.	
D. Child health conferences and supervision 1. Health supervision, including: a. Periodic physical examination. b. Growth evaluations. c. Home visits by nurses. d. Immunizations. e. Advice to parents relative to child management and care. 2. Education methods a. Personal conferences with physician and nurse. b. Home visits by nurse. c. Printed materials. d. Films e. Group lectures, demonstrations and discussions.		

Present Situation (Services and Resources)	Suggestions and Recommendations for Immediate Action	Suggestions and Recommendations for Long-range Objectives or Action
	It is recommended that:	It is recommended that:
3. Attendance at conferences 9499 infants and pre-school children in the Territory (approximately 1/5 of population under 6 years of age) in fiscal year 1946.		
4. Adequacy of services Relatively small proportion of children receiving adequate or continuous medical supervision throughout preschool years.	There be established experimental or demonstration child health conferences for special purposes such as for diagnostic consultation or for education in mental hygiene.	Adequate health supervision and guidance be made available to all children.
E. Problems in health care of dependent children 1. Infrequency of home visits for treatment of illness.	Bedside care be made readily available to all institutionalized children by each institution or by a coordinated plan through public or other funds.	
2. Doubt raised by medico-legal aspects of medical examinations as to whether present methods follow accepted mainland practices.	Foster parents be recompensed by the Department of Public Welfare for the cost of home medical care of dependent children by the family physician of the foster parents.	
	Careful study be made jointly by the Juvenile Court, Police Department, public health agencies, social agencies and medical society of the medicolegal and social implications of local	

Present Situation (Services and Resources)	Suggestions and Recommendations for Immediate Action	Suggestions and Recommendations for Long-range Objectives or Action
	practices in connection with examination of dependent children, especially of adolescent and pre-adolescent girls.	It is recommended that:
F. Children handicapped by heart disease 1. Studies of incidence a. Existing (see Appendix IID for comparative data).		A rheumatic fever program be started jointly by hospitals, social agencies, physicians and schools.
b. In progress Study of hospital admissions by Doctors Berk and Hartwell.	A school survey be made to determine the prevalence of rheumatic fever in the Islands.	A foster home service be established for children convalescing from rheumatic fever.
2. Rheumatic fever finding program a. Subsidy by the Bureau of Crippled Children of Territorial Board of Health b. Interviews of patients' families c. Referral to The Queen's cardiac clinic	An educational program be directed at lay and professional persons, with special emphasis on the high incidence of rheumatic fever and the need for funds to combat it.	
3. Organizations None at present specifically concerned with children's heart disease.	A territorial chapter of the American Heart Association be organized to coordinate efforts of interested physicians and laymen.	Consideration be given by the proposed A.H.A. chapter to the raising of a fund to pay for the medical care (and possible travel expenses) of indigent children with congenital heart disease.
G. Health aspects of adoption 1. Court of Domestic Relations a. Passing on all petitions for adoption.	A coordinated educational program be instituted by agencies concerned to inform the public regarding adoption procedures.	

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
	It is recommended that:	It is recommended that:
b. Referral of petitions for investigation to social agency at option of judge.	A greater degree of uniformity of procedures and practices be developed in relation to health examinations and medical follow-up of both the adoptive children and adoptive parents among the social work agencies responsible for adoption. To this end, the child placement agencies should set up a joint medical advisory committee under the child welfare committee of the Council of Social Agencies.	Adequate social service resources be developed in the Department of Public Welfare to make such investigations.
c. Occasional inclusion in investigation of health examination of the child, natural parents or adoptive parents.		
2. Child placement agencies		
a. Department of Public Welfare: social investigations of all referred cases (about 10 per cent of total petitions).		
b. Private agencies		
1) Supplying of information upon request when children are obtained through their organizations.		
2) Securing data regarding child		
a) Physical condition		
b) Mental condition		
c) Family background		
d) Natural and adoptive parents		
H. Women in industry		
1. Number of female workers in the Territory		
a. Estimated total, 39,000 (including 6,000 domestics) in October 1947		

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
(3612 of them in manufacturing industries in September 1947.) b. Large number in agriculture (6,000 added to total during 3-month pineapple season).	It is recommended that:	It is recommended that:
2. Employers' antagonism to pregnancy in workers a. Mainland: marked, with women frequently being fired after discovery of their condition. b. Islands: less marked. 3. Local practices and problems a. Reasons for delayed care of pregnant worker. 1) Tardy recognition of condition by woman. 2) Lack of time while working. 3) Need for secrecy so as to keep job.	Employers' associations, even in the absence of legislation and beyond legislated requirements, attempt to educate employers to the advantages resulting from high standards of working conditions of female employees, and toward the development of attitudes toward the pregnant working woman based on the following principles: 1) Punative policies and practices toward the working pregnant woman result in her keeping her pregnancy secret as long as possible, thus increasing any hazards which may exist. 2) The likelihood of interruption of pregnancy is greatest during the first three months of pregnancy when the woman can usually keep her condition from being detected. 3) Encouraging the working pregnant woman to disclose her pregnancy early results in more adequate medical care, greater exercise of safety precautions, more productive use of her abilities, and greater protection to the employer.	A five-year survey be made with emphasis on the advantages of the program to the employer as well as to the employee.

Present Situation (Services and Resources)	Suggestions and Recommendations for	
	Immediate Action	Long-range Objectives or Action
b. Haphazard coordination between findings and recommendations of physician and adjustment of woman's work by employer. 1) Degree a) Most haphazard with private physicians (the most frequently consulted). b) Least haphazard when medical supervision occurs in industrial plants. 2) Reasons a) Difficulty of describing women's work other than by titles of employment. b) Physicians' difficulty in presenting findings and recommendations in terms of work being done and the needs of the industrial plant.	It is recommended that: By joint efforts of the medical society, management, labor, and the Board of Health, there be established in connection with working pregnant women a program of: 1) Job analysis in physical terms. 2) Reporting of such analysis to physicians. 3) Interpretation of physicians' findings to employers and personnel managers. 4) Modification of conditions of employment to meet the recommendations of the physicians.	

NARRATIVE REPORT

Subcommittee on
Maternal Health Conferences and Prenatal and Postpartum Care

Committee on Maternal and Child Health

In point of time, the first interest of the prospective mother should be in obtaining adequate information and the physical examinations necessary to assure a safe and healthy delivery. Maternal health conferences and prenatal and postpartum care are basic to a public health program.

A number of maternal health conference centers have been established in the Territory. During the fiscal year 1946, there were 12 such conference centers on Oahu and 35 elsewhere in the Islands. The rural conferences were held in conjunction with the plantation hospitals in several instances and in Board of Health centers in others. In the city of Honolulu, a conference was held at The Queen's Hospital and one at the Kapahulu Health Center.

Approximately one-tenth of the pregnant women in the Territory attended conferences during the fiscal year 1946. Although there is no way of appraising accurately the number of women who receive prenatal and postpartum care from other sources, the number seems fairly high. Of these who do receive some prenatal care, it is not known how long before delivery they are under care, or what proportion of women return to a physician for a postpartum examination. It can be stated without question that women do not report to physicians early enough in pregnancy or consistently enough after delivery.

Unfortunately, much in the way of data is lacking regarding this subject. For maximum success in caring for the pregnant woman, full statistical information should be available concerning the local situation. A careful study should be made jointly by the Bureau of Maternal and Child Health and the Medical Society of the actual amount and type of prenatal and postpartum care received by the mothers of the Territory, whether under the supervision of private physicians or in maternal health conferences. Attempt should be made to correlate the kind of care with factors such as race, age, education, economic level, geography, and morbidity and mortality of mothers and infants.

The number of conferences held on Oahu at the present time is smaller than previously and is being reduced progressively. This is in line with the policy of the Bureau of Maternal and Child Health that it is deemed advisable for the same physician to see the patient during the prenatal period, deliver her, and give her a postpartum examination. This is preferable to having her care divided among

several physicians. Therefore, whenever possible, the patient is encouraged to go for the prenatal and postpartum portions of care to the same physician who performs the delivery.

In the earlier days of community health education, it was necessary to establish more widespread coverage by maternal health conferences in order to teach mothers the importance of prenatal and postpartum care. As more and more women in the community learned this importance, they developed the habit of going to their private physicians for such treatment, although still not early or consistently enough. In the present stage of education of the women of the community, it is believed that maternal health conferences have less of the function they previously held of emphasizing the importance of prenatal care and more that of actually rendering such care to those who cannot obtain it from private physicians. Therefore, except where plantation physicians organize their obstetrical work along conference lines, attendance at the maternal health conferences is limited to a large degree to those who do not have private physicians. This would include such women as those who are medically indigent and plan to be delivered as a welfare patient at one of the hospitals, those who cannot afford a private physician's fee and have made arrangements to be delivered by a house physician at one of the city hospitals, patients delivered at military hospitals who are not able to go to such hospitals for prenatal and postpartum care, or patients arranging to be delivered by midwives.

An important exception to this overall trend toward fewer conferences could well be in connection with hospitals. A maternal health conference should be established in conjunction with each hospital which operates a large maternity service so that patients who are to be delivered in a hospital by members of the hospital staff can receive prenatal care by the same persons or at least under the same setup. This would permit greater continuity of record keeping and of planning between the prenatal, delivery and postpartum services. In addition, by close association with the hospital, it would permit more effective laboratory testing and outpatient treatment of minor complications. A third important advantage would be the opportunity thereby offered to interns in the hospital to receive training in the prenatal and postpartum aspects of obstetrical work in addition to the deliveries to which their experience is ordinarily limited in a hospital internship. A well-rounded internship should give outpatient as well as inpatient experience. The same broadening of training experience would be available to the student nurses of the hospitals.

Private physicians paid by the Bureau of Maternal and Child Health or by plantations render service at the conferences. Interns at the Queen's Hospital participate in the maternal health conference which is held at that hospital. Public health nurses give assistance at the conferences and give home service in conjunction with the

recommendations made by the conference physicians. Nutrition instruction is given in the form of demonstrations by the nutritionists of the Bureau of Maternal and Child Health and at times in conjunction with the University Agricultural Extension.

Patients attending the maternal health conferences receive periodic examination, monthly during the first seven months of pregnancy, twice a month during the eighth month, and weekly during the ninth month. Patients receive a complete physical examination by the physician as well as evaluation of the progress of pregnancy. At the first visit, a blood test is taken for syphilis and a smear for gonorrhea. X-ray of the chest is being established as a routine in all cases. X-ray of the pelvis is available upon the request of the physician. Urinalysis and blood pressure determination are made at each visit. The patients return to the conference six weeks after delivery for a final check-up examination. Most physicians now maintain this same standard in the care they give their private patients.

The conferences do not attempt to carry patients who develop complications or require special treatment. Such cases are referred elsewhere for medical care.

Laws passed in recent sessions of the Territorial legislature have helped toward attaining greater adequacy of prenatal care for the mothers of the Territory. The compulsory blood test for syphilis during pregnancy makes it likely that most pregnant women will visit a physician at least once during pregnancy. It is hoped, incidentally, that the physician will perform a complete health examination in addition to taking the blood specimens. Figures are not yet available for the percentage of mothers who receive a blood test for syphilis during the prenatal period. The compulsory premarital examination and blood test law also has strong educational value.

There is little doubt that improvements in the present program are possible. The community education program on prenatal care could well be extended, especially to students in the high schools. There is some feeling that more emphasis should be placed on the mental hygiene implications of pregnancy, on careful follow-up to encourage proper rearing of the child, and on other aspects of family counseling.

Certainly, it is axiomatic that every mother, regardless of economic level, should be given opportunity for prenatal and postpartum care either in a maternal health conference or by a private physician. Wherever she receives the care, each mother should have the same opportunities for ancillary assistance, such as pamphlets, lectures, home nursing service, nutrition aids and the like. There should be close correlation between the care given during the prenatal and postpartum periods and the actual delivery as well as to the treatment for complications which develop. Standards of the U. S. Children's Bureau should be followed.

Subcommittee on Parents' Classes

There is a definite need for parents' classes. Such classes bridge the gap between individual attention on the one hand and general education via newspapers or radio on the other. Admittedly, the health supervision of any person, whether adult or child, requires individualization of examination, diagnosis and advice. However, there are certain basic concepts and information in medical care and health which the public at large should know. Supplementing the general public health education which is furnished through newspapers, radio, pamphlets, and other channels, there is need for education of small groups in connection with their more specific interests, such as pregnancy among women, and child care and management among parents. Such selective group teaching reaches more persons than individual contact and is usually more effective than general education. In addition, it gives support to those attending such classes by helping them to recognize that others have the same problems as they do and by offering opportunity for their participation in discussions and interchange of ideas.

Classes do not attempt to treat individuals in the sense of meeting specific health problems. They give opportunity for parents or patients to raise questions which are disturbing them, to have their questions answered in common with others or to be referred to the proper resources for the solution.

During the fiscal year 1947, the public health nurses of the Board of Health conducted 64 classes in Honolulu, chiefly at the Kapahulu Health Center and at the Naval Housing Area. Classes are limited to small groups and are well attended. The American Red Cross has conducted classes in home nursing for women with emphasis on prenatal and infant care. Additional classes are being planned by the public health nurses in other areas.

In several ways these classes could be made somewhat more effective. At present, for example, a shortage of personnel limits the scope and number of parents' classes. As a remedy for this situation, the public health nursing staff of the Board of Health should be expanded to permit more time to be devoted to the preparation, giving and associated services of the classes. Another improvement would be to hold classes in the evenings, to permit more fathers to attend. Further to increase the effectiveness of the classes they could be organized in conjunction with the University, adult education department of the Department of Public Instruction, or other educational channels. Presenting the subject of parents' classes and their importance to the medical profession for establishment of a policy on referral of patients would similarly act to extend their usefulness.

The content of parents' classes is of paramount importance. It should be prepared by combined effort of the Bureau of Public Health Nursing, Bureau of Maternal and Child Health, Child Guidance Clinic, the Honolulu County Medical Society, the Mental Hygiene Society, and other qualified groups and organizations. It might be advisable to include information on birth spacing in these classes.

Finally, mention must be made of the role of the physician. Parents who are doing the least adequate job of health management are the ones least likely to elect to come to such a class. It is therefore important that the classes be emphasized as a resource in the community and that more referral of patients be made to them, especially by the family physician. He is in a position to recognize inadequacy of a mother because of lack of experience or education or because of emotional instability, which would warrant the support that she might receive from being better informed on such aspects of child rearing as feeding, sleeping, habit training and discipline.

Parents' classes constitute a vehicle for the development of good mental hygiene concepts and practices in the community. They should be established on as widespread a basis as possible for individuals of all economic levels.

Subcommittee on Prematurity

Premature births occur frequently enough, and with sufficiently serious consequences, to give the problem of prematurity high priority in a maternal and child health program. Causation, incidence, death rate and related factors are all important aspects of this problem requiring attention.

Deaths from prematurity have maintained a relatively constant level during the past two decades, in contrast to the declining trend of other causes of infant deaths. During the fiscal year 1946, a total of 129 infants in the Territory were reported to have died from prematurity--almost 11 deaths per 1,000 live births. Although this rate represented a slight improvement over 1945, the change since 1930 has been negligible. During the same 16 year period, the total infant mortality rate for the Islands dropped approximately 60 per cent. Consequently, deaths from prematurity have constituted an ever larger proportion of total infant deaths (less than a fifth in 1930, about 38 per cent in 1946). Between World Wars I and II, deaths from prematurity per 1,000 live births were significantly higher in the Territory than on the mainland. Thus the magnitude of the problem locally is further underscored.

These figures are unfortunately somewhat unreliable, and suggest the need for an improved method of tabulation. A basis for appraising the scope of the premature care problem in the Territory somewhat more accurately than the reported premature birth rate is the number of infants who are reported to die from prematurity. This too cannot be considered as an absolute figure since the statistics reveal prematurity as the cause of death only when prematurity takes precedence over other causes of death according to the Manual of the International List of Causes of Death and Joint Causes of Death sequence. In many instances infants more than two weeks of age have some other condition such as pneumonia which appears statistically as the cause of death. In such cases prematurity does not appear since second and third causes of death are not considered or counted even though prematurity may have contributed to the infants' succumbing to pneumonia. In addition, physicians do not always remember to mention prematurity on the death certificate so that even in those cases where prematurity would by rule 1/ take precedence, it may not appear and therefore not be considered. If, however, there were a standard for prematurity such as a given birth weight and if all certificates of infant deaths were compared with birth certificates, any infant under 15 days of age would necessarily be recorded as a death from prematurity if the birth certificate indicated that the child was a premature by the

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1/ According to the Manual of the International List of Causes of Death and Joint Causes of Death rule.

accepted standards. As of January 1, 1945, the Board of Health instituted a combined birth-death punch card for infants on the basis of which an analysis can be made of the birth factors of all infants who die. In connection with prematurity this study will permit determination of deaths of infants in relation to prematurity even though prematurity is not the primary cause of death. It will therefore be possible to learn what percentage of infants born prematurely died before one year of age from all causes and to compare this with the deaths of full-term infants.

Similarly, there is no exact knowledge regarding the total number of premature births occurring in the Territory. Computation of the number of premature infants born in the Territory is based on the statement on the birth certificate indicating the month of gestation. Obviously this is not a very accurate method of determination of prematurity. In 1945, upon the recommendation of the Territorial Medical Society, the Board of Health added to the birth certificate the item of birth weight. There now exists opportunity for accumulation of information concerning the birth weight range of infants of various races born in the Territory. After several years of such accumulation of information, it may be possible to determine the normal range of birth weight and to compare it with the accepted mainland standard of 5 lb. 8 oz. as the dividing line between the premature and the so-called mature infant. On such basis it will be possible to determine the total problem of prematurity in the Territory. Until such determination of birth weights in the Territory as compared to the mainland, it would seem advisable to use the mainland standard of 5 lb. 8 oz as a basis at least of study of the problem if not of change of gross statistics and reports.

Furthermore, insufficient data exist regarding the relationship of prematurity in Hawaii to the various related factors, a lack suggesting the need for a special study. It has not yet been determined whether prematurity (apart from deaths) occurs more frequently in the Territory than on the mainland or in other areas, whether prematurity in the Territory occurs more frequently in one racial or geographic group than another, or how its incidence relates to other factors such as illegitimacy, economic level or amount of medical supervision the mother received during the prenatal period. During recent years, greater emphasis has been placed upon the relation of prematurity to prenatal diet, especially adequate protein intake. The significance of the various dietary customs practiced in the Territory has not been evaluated thoroughly in relation to effect upon incidence of prematurity. Nor has careful analysis been made of medical obstetrical practices such as early Cesarean or treatment of toxemia of pregnancy, which practices among others are generally considered to affect the incidence of prematurity in a community. Study should be made of these factors.

Still another study might follow prematurely born infants through childhood. An appraisal of the significance of premature births and of the care given in the community to premature infants cannot be complete without studying the incidence of such after-effects as rickets, severe anemia, mental deficiency and cerebral palsy.

Premature infants born at home in Hawaii are not always assured the most rapid or best of care. Frequently only a midwife is in attendance, and not all midwives are well qualified for such exigencies. The Bureau of Maternal and Child Health training program for midwives could well be intensified here, as could the public education on the value of hospital delivery. Specially trained public health nurses are on call but seldom notified in time to give immediate care.

Premature births at home often require special equipment that is not immediately obtainable. A loan closet with incubator, oxygen equipment and other necessary equipment is maintained at Mabel Smyth Building by the Bureau of Maternal and Child Health. Midwives are instructed to notify the public health nurse on call immediately. The nurse goes immediately to the home with equipment, but the location of this equipment tends to limit its value to the city of Honolulu rather than serving the rural areas as well. A pediatric consultant will visit the home at the request of the Director of the Bureau of Maternal and Child Health. Private physicians may use the equipment if they wish. However, the Board of Health should make portable incubators available to all parts of Oahu.

Premature infants born at home should soon be removed to hospitals. If the infant is delivered by a midwife, the public health nurse is responsible for its care. Home care is never entirely satisfactory, so an attempt is made to transfer all premature infants to a hospital. However, there is no guarantee that a home-born premature infant on Oahu will be admitted to a hospital as soon as is desirable. In rural areas, hospital admission is usually assured. In Honolulu, two hospitals will at times admit infants born outside the hospital.

Premature infants treated in hospitals are somewhat more fortunate. There is a new demonstration premature infant center at St. Francis Hospital, for example. The Queen's Hospital expected to establish a separate nursery for the prematurely born late in 1947. Few other Honolulu hospitals have separate nurseries for the prematurely born, however, and these infants receive care in the same nurseries as full-term babies. In almost every instance, nurseries for full-term newborn infants are overcrowded. Certainly, Oahu hospitals do not give sufficient emphasis to readiness for premature births and protective transfer to nursery. Each hospital should develop adequate facilities and accepted practices for the birth and care of premature infants. The larger hospitals should develop

separate nurseries for premature infants. Nursery facilities for full-term newborn infants should be renovated so as to overcome overcrowding. Whenever new nurseries are constructed, they should be built in small units.

There are also challenging problems related to matters of nursing personnel. Almost no hospital on Oahu assigns enough nursing personnel to the full-term nurseries. As for premature infants, the recommended ratio is not attained in any hospital. Staffs of all hospitals should be enlarged to permit at least one nurse on duty at all times per eight full-term infants and one nurse per four premature infants. The nursery and delivery staff of every hospital on Oahu should receive some special training in the care of premature infants; few have had such training. The Hospital Nursery Consultant of the Bureau of Maternal and Child Health will, upon invitation, spend time in hospital nurseries helping to train nursing and attendant staffs and to advise on nursing techniques and procedures. This consultant's services should be utilized, and the special program of the bureau for training of nursing staffs in the care of premature infants should be continued.

There are other problems having to do with the hospital care of premature babies as well. By and large, the physicians of the community give adequate emphasis to the special needs of premature infants. In some instances, however, physicians tend to underestimate the indications for special care and prefer to consider the infants as "small babies." No feeding routines or policies have been established for the nurseries. Variable practices depend upon the decision of the physician in charge of each infant.

Greater attention should be paid to home supervision following discharge from the hospital. Such follow-up supervision by public health nurses is inadequate. Hospitals do not refer names of discharged premature infants for nursing service. Physicians do not often request such services for their patients. It is doubtful whether the Bureau of Public Health Nursing could carry a thorough home visiting program for premature infants without enlargement of its staff, however. As a possible solution, physicians and hospitals should collaborate in establishing a program of referral of names of premature infants for home nursing service after discharge from the hospital. The nursing staff of the Bureau of Public Health Nursing should be enlarged to permit taking on such a program.

A major difficulty is that raised by social and financial considerations. Hospital care of the premature infant is usually a lengthy procedure and for the average family constitutes a burdensome and unexpected expense. The Department of Public Welfare has not presented clear policies on definition of medical indigency of a family when premature birth occurs, nor has the Welfare Department

indicated to what degree it accepts the need of and is willing to pay for lengthy hospitalization for premature infants. Unfortunately, hospital fees paid by public agencies do not usually recompense the hospital for the high cost of furnishing adequate care to premature infants. It is also true that the mother of a premature infant usually needs more emotional support than the mother of a full-term infant. A limited degree of such service is available from the Public Health Nurses of the Board of Health and from the social worker of the Bureau of Maternal and Child Health. Social agencies of the community are not usually able at present to take up cases for this specific service alone. Problems of indigency should be clarified, and extended social services made available to families in which premature birth occurs.

Subcommittee on Midwifery

The midwife, no longer as common as before, nevertheless remains something of a problem. Midwives are hardly a substitute for modern hospital care, and require careful supervision to assure the maintenance of adequate standards. Hence, the subject of midwifery deserves full consideration in planning for maternal and child health.

During the fiscal year 1946, 32 midwives were registered in the Islands. These midwives delivered 510 mothers, of whom 65 were delivered in the two lying-in homes licensed in the City of Honolulu and the remainder in their own homes by the midwives. The number of midwives has decreased progressively over the past decade or longer, as has the percentage of infants delivered by midwives. Seldom is a new midwife given a permit in the Islands, since most of the midwives are alien Japanese trained in Japan and new midwives, except nurse midwives, are not being trained in the United States.

Midwives are required to have a permit from the Board of Health which is issued by the Bureau of Maternal and Child Health and renewed annually. The permit is issued on the basis of: a physical examination including a chest x-ray and a blood test for syphilis, inspection of the midwife's personal hygiene and the equipment which she uses, observation by a public health nurse of the midwife's management of a delivery, and general supervision throughout the year of the caliber of prenatal and postpartum care and of her conformance to prescribed procedures. The Bureau procedures for midwives include a number of responsibilities. Each case must be reported at the time it is undertaken by the midwife. She must make prompt referral of each case to a physician for a complete medical examination and blood test, and check with the physician on the examination and his findings. A report by the physician of absence of any complications, such as premature delivery, antepartum bleeding, abnormality of infant, syphilis, hypertension, extreme obesity, and others which would make it hazardous for the midwife to take up the case is required. The midwife is supposed to refer the case to a physician if complications exist or threaten or if there is history with previous pregnancy of difficulty of a type which might be repeated, and report the referral to the Bureau. Furthermore, she must report all deliveries. Hers is the responsibility for placing prophylactic drops in the eyes of the infant and for supervising mother and infant during the puerperium. The midwife is encouraged to have the mother report to a physician or maternal health conference for periodic prenatal supervision and for postpartum examination.

Several improvements in current practice might be suggested. One would be to increase the staff of the Bureau of Public Health Nursing of the Board of Health to permit more time to be given to midwife supervision. Another would be for the Board of Health to issue official midwifery regulations to replace the present manual of procedures.

It is hoped that some day all maternity patients will have the advantage of full and adequate medical supervision and that relatively independent midwifery will be eliminated. There may conceivably develop a branch of nursing which would offer specialized assistance in connection with maternity care, but the degree of independent management which pertains under the present program of midwifery should not be continued indefinitely.

Subcommittee on
Child Health Conferences and Child Health Supervision

Child health conferences and supervision play an important role in protecting the infant and preschool child. Once the crisis of birth is past, new and different health problems confront the infant. Despite the importance of adequate health care during this period of his life, there is frequently insufficient attention paid to the health of the child between birth and the time he begins school. One means of attacking this problem is through a program of child health conferences and child health supervision.

On Oahu, child health conferences are held regularly at 37 centers. Of these, two are conducted independently by plantations and the other 35 by the Board of Health or by plantations in cooperation with the Board of Health.

The conferences are conducted by physicians who may be plantation physicians, private physicians working on a part time basis or full time members of the Board of Health staff. The physicians are assisted at the conferences by public health nurses on the staff of the Board of Health in most instances, in other conferences by plantation nurses. There are in addition volunteer workers.

The conferences provide health supervision of children from birth to 6 years of age. Such health supervision includes periodic physical examination, evaluation of development, immunizations and advice to parents in connection with child management and care.

Health examination is given periodically, in early infancy at approximately one month intervals, during the second year of life at intervals of about 3 months and subsequently twice a year. Children receive immunization against smallpox, diphtheria and tetanus before the first year of life and against typhoid at three years of age. Before discharge from the conference at 6 years of age the child who is about to enter school receives a complete physical examination including booster immunization. Report of this examination is forwarded to the school and constitutes the basis for beginning the cumulative school health record.

The Bureau of Maternal and Child Health is attempting to standardize its procedures in the child health conferences and place greater emphasis upon the growth and developmental aspects of child management by means of several demonstration or model child health conferences in Honolulu conducted by full-time members of the Bureau staff. At the same time emphasis is placed through the staff education program of the Bureau of Public Health nursing on development of increased understanding on the part of the public health nursing staff of the problems of child

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management and development. In conjunction with the child health conferences the public health nurses make home visits so as to carry the teachings of the conference into application within the home. The child health conference work is coordinated with other activities and agencies which relate to the child, including the schools in connection with older children in the family, nursery schools or day care centers, child care institutions or foster homes, private physicians, clinics, hospitals, nutrition education through the university Agricultural Extension and other sources, the juvenile court, social agencies, and charitable organizations of various kinds.

The conferences do not attempt to treat illness. Parents are referred for care of the child's illness to private physicians or elsewhere. When such referral is necessary the physician in the conference attempts to give as much information as possible to the physician who will care for the illness of the child. The conferences are considered primarily an educational device. Education of the parents in child management and rearing is obtained by discussions with the physicians and with the nurses, by demonstrations on diet and other matters and by distribution of printed material.

All children under 6 years of age are eligible to attend child health conferences. However, the chief function of the conferences is to educate the community to the importance of periodic health supervision of the well child. Therefore, the public health nurse discusses with each mother at the time of the first visit to the conference the question of a family physician and encourages her to go to a private physician if she can afford it. Each mother is informed of the importance of having a family physician selected in advance in the event that the child should become ill. In the course of time because of these measures, a large portion of the economically solvent persons attending child health conferences eventually develop the habit of attending the office of a private physician for health supervision of the well child. The majority by far of the patients who attend the conferences, however, are those who would not ordinarily fall in the category of private patients, including children who are not under the supervision of a private physician, infants who are referred by military hospitals, dependent children in foster homes or institutions, infants of mothers delivered by midwives or unattended at the time of delivery, and other groups of medically indigent families.

During the fiscal year 1946, 9499 infants and preschool children attended child health conferences in the Territory. This constituted approximately one-fifth of the total number of children under 6 years of age in the Islands. Even among this number only a small portion could be said to have received consistent health supervision from birth to 6 years of age. To what degree the other children, who did not attend child health conferences or the children who attended child health conferences only for a short portion of the preschool years, received

adequate health supervision from other sources, especially from private physicians, it is impossible to determine. It can be accepted without question, however, that only a small portion of the children receive the amount of health supervision which the conferences aim to furnish. Probably a large portion of the infants under one year of age do receive child health supervision either in the conferences or from private physicians. But beyond the first year of age and especially between 2 and 6, the number falls off rapidly. This is due primarily to the fact that the problems of infancy do not carry into the preschool years; that the problems of the preschool years are primarily those of discipline, behavior and management rather than physical matters; that the diet of the preschool age child is that of the family and requires little special instruction; and that both private physicians and the physicians in the child health conferences have not had the time nor has the program been developed so that they are in a position to give the mothers the assistance they require in the problems which face them in the management of the preschool age child.

The demonstration child health conference might prove a useful device. Experimental or demonstration child health conferences should be developed, with emphasis on rotating attendance of physicians from other child health conferences at the experimental conference. One such experimental conference could be developed by an organization like the Palama Settlement. This conference would attempt to establish techniques for devoting more time to the discussion of the mental hygiene aspects of child management, with the objective of developing group teaching techniques and locally applicable educational material.

Consideration might well be given to the development of a consultation or diagnostic clinic for referral of patients attending other child health conferences. This service (perhaps a function of the Bureau of Maternal and Child Health) would help patients who are not in a serious financial condition to visit private physicians and would be limited to problems of growth and development and general health rather than acute illness. The findings of the diagnostic conference would be referred back to the referring child health conference for continued management if treatment beyond that usually included in the scope of the conference is not indicated. If additional treatment is required, the child would be referred to other medical resources.

Every child should be placed under periodic health supervision, either by private physicians or in a child health conference. In either case the patient and the family should receive equal benefits of printed material, group teaching, nutrition demonstrations, public health nursing and other ancillary services.

Although both the management and health examination of each child must remain individualized problems, the problems of child rearing and management by and large are similar for all parents and the general

educational needs of the parents are the same. Therefore, a combination of services which will give to each child and mother the individualized services of a physician and nurse and to all parents the opportunity to receive education in child rearing and management on a group or community basis would be an excellent goal for the future.

There has been insufficient appreciation of the growth and developmental problems of the child and the mental hygiene aspects of his management. This constitutes the greatest need in the development of more effective child health supervision on Oahu, as in the rest of the Territory and most parts of the mainland. Proper instruction on management of the child from a physical point of view during the infancy and preschool years carries over in its effect upon the relationship between the child and the rest of the family. It has significant mental hygiene implications in the later personality development of the child, in his readiness and acceptance of formalized education in the schools, in his adjustment during adolescence and adulthood, and in the degree to which he becomes an asset to the community. Investment of community efforts and funds in parent training and child management during the preschool years would pay back manyfold in savings in other community expenditures. The contribution in other ways, less tangible but nonetheless important, would be equally great.

Subcommittee on
Health Care of Dependent Children

Dependent children frequently receive less adequate health care than other children, hence deserve special mention in maternal and child health planning. Consideration must be given to dependent children in both institutions and foster homes.

Dependent children are defined in the Territorial laws:

> "For the purpose of this chapter the words 'Dependent Child' shall mean any minor under 18 years of age who, for any reason, is destitute or homeless or abandoned or dependent upon the public for support or who has no proper parental care or guardianship, or whose home, by reason of neglect, cruelty or depravity on the part of his parent, guardian, or other person in whose care he may be, is an unfit place for such child, and shall also mean any minor under 12 years of age who might otherwise be adjudged a delinquent child as that term is herein defined; ......" 1/

Children rendered dependent because of circumstances within their own homes may continue to remain with their families under the supervision of case work agencies and when this is not possible they may be placed in foster boarding homes or child-caring institutions.

Dependent children are in most instances eligible to receive the same medical services as are offered to indigent adults. In rural Oahu, this means medical care by the district government physician. In the city of Honolulu, service is offered by the City and County Health Department through the Department of Public Welfare.

Children, in both foster homes and institutions, are sometimes given inadequate treatment. When ill, they are often taken to the Emergency Hospital. Bedside visits are not made to the degree that would be desired. Too often, ill children are transported to the physician. Some of the child-caring institutions have an institution physician on call for illness. Foster parents who call their family physician to visit the dependent child usually have to pay for the service themselves.

To assure proper care for children in child-caring institutions, one of two steps is indicated: either development of a coordinated program of health examination and medical care for all such children

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1/ Ch. 300, Sect. 12321 (Juvenile Court), R. L. H. 1945.

or obtaining of a resident physician by each of the institutions. In either case, bedside care should be made readily available.

It is also possible to improve the lot of children in foster homes. Foster parents should receive recompense from Department of Public Welfare for the cost of home care of dependent children by the family physician of the foster parents. This would permit a more natural and complete incorporation of the child into the family circle and would result in less obvious distinction between the natural and foster children in the household. It would also encourage more desirable assumption of parental responsibility for the child's illness by the foster parents.

Still another problem is raised by the legality of examining delinquent young girls (legally regarded as "dependent"). It is not clear whether sufficient precaution is always exercised by the City and County Health Department in obtaining consent for health examination from the natural parents or legal guardians. This is of special moment in connection with genital examination of adolescent and pre-adolescent girls upon police referral. Undue medicolegal significance seems to be attributed to the doctor's report. Careful study should be made of the medicolegal aspects of methods and significance of examination of such adolescent and pre-adolescent girls. Modification of current local practices in this respect should be made if they are discovered to deviate from the accepted opinion and practices of the rest of the country.

Subcommittee on
Health Aspects of Adoption

Certain specialized health problems are raised by the practice of adoption. Some of the problems are essentially legal in nature, some administrative, and others educational. Basically, however, the aim is to match the right child with the right adoptive parents--to insure that the former possesses the proper physical and psychological qualifications, that the latter are willing and able to provide the proper economic and emotional environment for the child. The services of a number of official and unofficial agencies are required to achieve this aim. The solution of the above problems is of greatest importance to both the child and its adoptive parents.

The legal basis of adoption is found in the Territorial Revised Laws of 1945. The judge, after considering the adoption petition and any evidence the petitioners may present, may grant a decree of adoption in the event he is satisfied

a. "That the minor child is physically, mentally, and otherwise suitable for adoption by the petitioners,

b. "That the petitioners are fit and proper persons and financially able to give the child a proper home and education, and

c. "That the adoption will be for the best interests of the child. ......"

Before entering a decree of adoption, "the judge may, in his discretion, notify the Director of the Department of Public Welfare of the Territory or his agent of the pendency of such petition for adoption and allow a reasonable time for the Director to make such investigation as he may deem proper as to the fitness of the petitioners to adopt the child, and as to whether the best interests of the child will be subserved by such adoption. The Director shall make a report to the judge within the time so required, reporting the facts disclosed without recommendation. If the judge shall determine that such report discloses facts adverse to the petitioners or indicates that the best interests of the child will not be subserved by adoption, he shall thereupon give opportunity to rebut the report."

In accordance with the discretionary powers permitted the judge by law, a small percentage of adoption petitions (approximately 10 per cent) has been referred to the Department of Public Welfare for investigation. In some instances where the children or the petitioners are already known to other child-caring agencies (The Child and Family

Service and Catholic Charities) such investigations have been made by the latter. Such studies reveal information secured in regard to the child's physical and mental condition, his family background, any hereditary factors which might affect the adoption, as well as information on the character of the petitioners, and their emotional stability and capacity to fulfill the obligations of rearing a child.

Aside from these requests for investigation of adoption petitions made by the judge, child caring agencies have been responsible for effecting a number of adoption placements themselves. In such cases every effort is made by these agencies to have the children examined by a competent physician and where they are old enough to be tested by a psychologist as well. As a further protection to the prospective adoptive parents and the child who is being considered, one child caring agency asks that the adoptive parents secure a thorough physical examination. Other child-caring agencies obtain what health history there is available on the adoptive family from the latter's physician, with the family's approval.

Special consideration must be given to the problems of the illegitimate child. Approximately one-half of all adoptions involve children who have been born out of wedlock, many of whom had been separated from the mother shortly after birth (according to a report made in December, 1944, by the Children's Bureau of the Department of Labor). In some instances the mother's rights had been relinquished even before the child was born. The Children's Bureau points out that infants of unmarried mothers are especially exposed to exploitation "by individuals who profit from the adoption transaction and who do not realize the danger of indiscriminate placement. ..... Provisions of proper medical care for unmarried mothers, case work service, and safeguarding of their legal and social rights will protect the mother and eliminate many of the evils which have been associated with adoptions sponsored by persons or agencies not equipped to give the services needed by these mothers and their infants."

While there are agencies in this community able and ready to a degree to provide such services, many people are uninformed in regard to their existence and the services they render. It would seem advisable to institute a well rounded educational program to keep the public informed regarding community resources. The Publicity and Information Committee of the Territorial Conference of Social Welfare, together with the Honolulu Council of Social Agencies, may be able to coordinate their efforts in this direction.

Adequate investigation is essential for each adoption. According to the Children's Bureau, "The adoption law should provide that the state welfare department shall make or cause to be made an investigation of every petition for adoption. ..... It is ..... the purpose of the investigation to determine whether the child is a proper subject

for adoption and whether the proposed adoption home is a suitable home for the child." While at present, the judge may, at his discretion, request an investigation by the Department of Public Welfare, the interests of children who are being considered for adoption may be better served should every one of them have the advantage and protection of such a study.

"Responsibilities which may be placed upon state departments of public welfare will accomplish little for the protection of children unless funds are provided for employment of the necessary skilled staff. Adequate financing of public and private agencies providing services for unmarried mothers and their children is essential. An adoption law cannot be fully effective for the protection of children unless the necessary provisions for placement in foster family homes (should the adoption plan fail to materialize) and other forms of child-welfare service are available in a community."

It is generally conceded that adoptions constitute one of the most difficult types of social work. Persons doing such work should be mature, experienced and well supervised. It is recommended that steps be taken to develop in the Department of Public Welfare an adequate number of well trained social workers and a program of expert supervision and coordination of adoption activities so as to be able to give proper investigation of all adoption cases.

Subcommittee on
Children Handicapped by Heart Disease

Both locally and nationally, heart disease is the leading cause of death. The overall death rate for the U. S. death-registration states of 1900 declined from 1719.1 in 1900 to 1152.8 in 1944; the rate for deaths from diseases of the heart rose, during this same period, from 137.4 to 398.3. Largely because of a difference in age composition of the population, Hawaii has had a much lower rate (118.7 in 1944). 1/ Even so, heart disease caused more than a fifth of all Island deaths during the fiscal year 1946 (about thirty percent of U.S. deaths in 1945). 2/ For a number of years, no other disease has caused more deaths, either in the Territory or on the mainland. 3/

Although most of the deaths from heart disease occur in the upper-age brackets, a surprisingly large number affects children. The bulk of these are results of congenital heart disease (alone blamed for the deaths of 25 persons under 15 years of age in 1945 4/) and rheumatic fever. The other types of heart disease--cardiovascular syphilis, hypertension, coronary disease, and other miscellaneous infections or affections of the heart 5/--are generally of greater importance among older people.

> Congenital heart disease is rare. About one baby in two hundred is born with heart disease, and but few survive to adult life. Not more than 1 per cent of cardiac disease in persons of middle age is due to congenital defects. On the other hand, 95 per cent of all heart disease in infants is congenital.
>
> The methods of diagnosis of congenital heart disease have improved in recent years, and in some instances these children may be greatly improved by skilled surgical procedures, notably by closure of patent ductus arteriosus. In the great proportion of instances, however, these babies die in early childhood. There is no satisfactory method for prevention of this group of diseases.

1/ See Appendix IID2.

2/ See Appendix IID3.

3/ See Appendix IID2.

4/ See Appendix IIE.

5/ See Wilson G. Smillie, Preventive Medicine and Public Health (New York, 1946), p. 429.

The heart disease of infants is congenital disease; the heart disease of children is rheumatic fever. This condition is the leading cause of death in the age group from 10 to 15 years, and is second only to tuberculosis in the next decade, 15 to 25 years.

The etiology of rheumatic fever is not known, and thus efforts toward control cannot be specific. The disease has declined in recent years as a cause of death, but other important childhood infections have declined at a much faster rate, so that at the present time one childhood death in eight is due to rheumatic fever.[1]

There has been considerable expansion of local facilities for the treatment of children handicapped by heart disease. Improvement has occurred especially in the means of caring for the financially indigent. Originally such medical care was assumed by Palama Settlement, but it has recently been transferred to the newly-opened outpatient department cardiac clinics of The Queen's and St. Francis Hospitals. Both clinics meet Wednesday mornings. A special rheumatic fever unit was opened at Kauikeolani (Children's) Hospital on November 1, 1947.[2]

This rheumatic fever unit offers a number of important services. It is under the auspices of the Children's Hospital and the Bureau of Crippled Children of the Territorial Board of Health, although it has been suggested that support eventually be shifted to the public, with funds raised by popular subscription. Within two weeks of the opening of this ward, the beds were all filled, but at the present time

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[1] Ibid., p. 429f

[2] Major pediatric and obstetrical institutional facilities currently available on Oahu include the following (total bed data from J.A.M.A.):

Institution	Type	Total Beds	Pediatric Beds
Kapiolani	Mat. & Gyn.	105	...
Kauikeolani	Children's	120 [a]	...
Kuakini	General	120	18
The Queen's	General	384	[b]
St. Francis	General	250 [a]	20 [c]
Shriners'	Orthopedic	28	...

[a] Most recent figure (from hospitals).
[b] No specific data available for either the obstetrical unit or the new prematurity nursery.
[c] In addition there is a prematurity unit (16 beds).

only eighty per cent of the beds are filled. The patients are under the supervision of a pediatrician and a cardiologist. All persons in attendance must have throat cultures which are negative for hemolytic streptococci and, of course, this applies to the patients as well. The Bureau of Crippled Children has also subsidized a rheumatic fever finding program in which they interview the families of patients who have rheumatic fever and send the children to The Queen's Hospital's cardiac clinic for study to determine whether or not they have rheumatic heart disease.

Even greater efficiency and service could be achieved by Kauikeolani's opening its own outpatient department on its present grounds.

A number of physicians in the Islands are concerned with heart diseases of children. Nineteen practice pediatrics, two of them on Hawaii and the rest on Oahu. Of the 16 interested in internal medicine, fifteen are located on Oahu and one on Hawaii.1/

Studies of the incidence of heart disease are important. Data from existing sources are summarized in Appendix IID. At the present time a study of hospital admissions for heart disease over a five-year period in four Honolulu hospitals is being completed by Drs. Morton E. Berk and Alfred S. Hartwell. In addition, a school survey should be made to determine the prevalence of rheumatic fever in the Islands. This might be done for a given age group or, say, the sixth grade of all the schools in Honolulu. This would require a good deal of time on the part of physicians, who must be competent in listening to children's hearts in order to make this survey authoritative. In this regard, reference should be made to the work of John R. Paul regarding the proper way to make a survey of a community for the incidence and prevalence of rheumatic fever.

A comprehensive program directed toward the control of heart disease among children should be initiated. There should be developed in the Territory a rheumatic fever program which would consist of cooperation of the hospitals, outpatient departments, social service departments, practicing physicians, and the department of education.

A foster home service is advisable, so that children who are convalescing from rheumatic fever could go to homes where quiet and adequate rest could be assured.

There should be more widespread intelligent publicity regarding the incidence and dangers of rheumatic fever in the Territory. This information should reach physicians as well as the public. One of the

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1/ See Appendix IID1.

best selling points would be the great disparity between the size of funds raised for poliomyelitis and for rheumatic heart disease, although the latter is the leading cause of death in children aged five to fourteen. It might be emphasized that a child wearing a brace because of poliomyelitis is no more crippled than a child with a crippled heart, yet the latter is less obvious and generates but a fraction of the public sympathy and support accorded the former.

The present lack of an organization specifically concerned with heart disease in children should be remedied. This might take the form of a Territorial chapter of the American Heart Association, which would coordinate efforts of interested laymen and physicians. One project of this proposed group might be the consideration of the raising of a fund to pay for the treatment (and perhaps travel expenses) of indigent children suffering from congenital heart disease.

Subcommittee on Women in Industry

Since 1918 a progressively greater percentage of workers in American industry have been women. During the war period there was an acute rise in their employment, but when the emergency was over a leveling off took place. However, the long-term trend of employment of women is definitely upward.

In the Territory, as elsewhere, the employment of women shows this same upward trend, which coincides with the growing industrialization taking place here. A current report from the U. S. Employment Service states that 33,000 women on Oahu are employed in industry with an increase in that number by 6,000 during the pineapple season. In 1943, at the peak of war industrialization, there were 43,000 employed on Oahu.

Along with such developments there should be other changes, one of them a greater interest in the health of women employees. A number of companies have shown special consideration for the health of their female employees, but other companies have been less advanced. Pregnancy is often found to be a major problem, but even when there is a good health program the pregnant woman is frequently ignored. Thus, it is with this phase of the woman's health that we are most concerned.

A program for the protection of such women should have two major goals. The first is the education of the employer to realize that proper consideration and health care will increase the number of work hours and decrease female employee turnover and absenteeism. The second is the instruction of the female employee in the importance of early prenatal care and in carefully following the suggestions of any program set up for her protection.

Such a protective program 1/ must be based on the full cooperation of the employer, employee and physician. The latter, whether an industrial physician or in private practice, should do all that he can to educate and instruct both the employer and worker.

The physician should have full knowledge of the specific nature of the work done by the expectant mother. Unfortunately, few bother do learn. The description by the patient is usually vague or incomplete or more in the nature of the general industry or occupation rather than her specific job. For the physician to know that she works in canning pineapple means little to him unless he is cognizant of what physical effort is required in the specific portion of the

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1/ Note the recommendations of the U. S. Department of Labor (Appendix 1 A).

canning process participated in by the patient. In this program, an attempt must be made to develop a common vocabulary between the employer or personnel manager on the one hand and the physician on the other.

On the recommended job analysis form (see Appendix I B), the most important hazards to the working expectant mother are listed. These hazards are generally recognized and agreed upon by authorities in industrial health and in obstetrics. The mere perusal of this list of hazards is in itself educational both to the employer and the physician; it brings them together in mutual agreement and gives them a common starting point. Each type of activity is defined generally, rather than in exact quantitative fashion, as "considerable," "Moderate," or "little or none." It is not felt that a more definite description could be practical. The personality of the employer will enter unquestionably into this job analysis. It will be tempered on the one hand by the desire to keep the worker employed and on the other by fear of the risk of lawsuit and injury to the employee. Both tendencies would respond to an adequate educational program.

Consultation may be offered through the development of a technical advisory committee of local obstetricians and authorities in industrial health. They would review cases brought voluntarily before them. The Bureau of Maternal and Child Health of the Department of Health would offer consultation until the organization of such an advisory committee, in lieu of it, or in cooperation with it. No advantage could accrue to any participant in the program through falsification of findings. The consultation service would therefore be needed merely to assist them in developing a better understanding of its features.

Undoubtedly, the employer, in the course of making out the job analysis, will develop his own opinions as to the advisability of termination or change of employment. Repeated use of the form will make him familiar with the hazards to the woman and will eventually reduce the number of improper job locations.

Reading the job analysis entails less than a minute's time on the part of the physician. After becoming familiar with the form, a quick glance at the columns of checks is sufficient to give the physician a good picture of the specific type of work being done by his patient. At the same time, the physician is educated as to the accepted opinion of medical authorities on working hazards during pregnancy.

The program lends itself to ready individualization. The physician can treat specific physical findings. The relation between varicosities and hours of standing is obvious. The relation between foot pedaling while sitting and varicosities is called to the mind of

the physician for his consideration. The importance of toxic substances cannot be too strongly or too frequently emphasized; it is an area in which the general practitioner heretofore has not taken a sufficiently active interest.

In these busy times every effort should be made to minimize the "paper work" required of the overburdened physician. The job analysis report does so. The report of the physician's findings to the employer is simple and brief. The physician's medical findings are his own concern. The conclusions resulting should be available to the employer without undue effort on the part of either one, a goal accomplished by the report slip (Appendix I C).

The employer should have some continuous record of the status of medical care of these women employees. Maintenance of this material should not cause excessive burden on the staff of the personnel department. The system suggested in this program is that of having the physician's report slips kept in gummed pads so that they can be attached to the file card in the employer's office. A copy can be pasted on to the physician's office record if he so desires it, or else the office record can be typed as the carbon copy when the slip is prepared in the physician's office.

It is recognized that regulation of physical work is only a small part of the health protection of working women in this condition. This report does not attempt to describe the usual efforts which should be made in the direction of control of number of hours, time of day, general sanitation, access to food and rest and other factors. Such efforts should run parallel with the above program. One result of the closer understanding between employer and physician is greater attention by the employer to giving the employee opportunity to obtain prenatal care. The employer will realize the necessity of giving his employee time off to visit the physician regularly. As a matter of fact, those employers who realize that the program protects them insist that the employee take the time off for medical supervision.

This program should eventually win the support of all parties. The basic philosophy permits these women to work rather than preventing them from so doing, thus helping the employer. Workers and their organizations will quickly realize the value to them of a health protection program and favor such a program as long as it is not used to coerce women to work during pregnancy. Physicians are naturally resistant to a program which at first glance seems to involve more "paper work," but participation in the program will soon give them the realization of its value as a time-saving aid in maintaining their patients' health.

APPENDIX

Contents

Appendix I

CARE OF WOMEN IN INDUSTRY

A. Recommendations of Department of Labor

The following recommendations on employment of mothers have been issued by the Children's Bureau and the Women's Bureau of the U. S. Department of Labor:

1. Opportunity for adequate prenatal care.
2. She should not work between 12 midnight and 6:00 a.m.
3. She should not work more than 8 hours per day nor more than 48 hours per week.
4. She should have at least two 10-minute rest periods during her working shift, with adequate facilities for resting and opportunity for securing nourishing food.
5. It is preferable that she avoid heavy work or do continuous standing and moving about.
6. She should not work at occupations which require good sense of balance, such as on a scaffold or stepladder.
7. She should not work at machines which have risk of accidents causing severe injury.
8. She should not be exposed to poisonous substances such as carbon monoxide, lead, benzol, or aniline dyes, even within "minimum permissible limits."
9. She should receive a minimum of 6 weeks' leave of absence before delivery and more if her physician believes she needs it.
10. She should receive a minimum of 2 months' leave of absence after delivery, and more if her physician believes she needs it.
11. All these provisions for maternity care and leave of absence should not jeopardize her job nor her seniority privileges.

B. Job Analysis Form[1]

PREGNANT WOMEN CAN SAFELY CONTINUE TO WORK IF THEY ARE GIVEN PROPER CARE

Category of activity or risk	Pregnancy does not affect all women alike. The doctor evaluates each patient on an individual basis. As a general rule, however, pregnancy would require that the woman do no more in each category than is suggested below:	The present work of this employee entails:			Explanation and Remarks
		Considerable	Moderate	Little or No	
	The ideal job is one which permits a comfortable sitting position and entails occasional standing and walking about				
Standing	Moderate				
Sitting	Considerable				
Walking about	Moderate				
Heavy Work	None				
Lifting	Little - The following factors are important: 1. Weight and compactness of units to be lifted. 2. Quantity lifted during day. 3. Distances and changes of levels of lifting. 4. Method of lifting--interference with gait, breathing, or center of gravity				
Bending and Stretching	Moderate				
Foot pedaling	None				
Exposure to moving machinery	Little				
Risk of accident causing severe injury	Little				
Sense of bodily balance	Little				
Exposure to toxic dusts, fumes, gases, vapor, mists, or other poisons	None There are certain noxious substances to which pregnant women are more sensitive than other persons. These are extremely dangerous to the health of the mother and child. The most important are: Lead and its compounds, mercury and its compounds, and phosphorus. Others are alcohol, aniline, benzol, toluol, carbon disulphide, carbon monoxide, chlorate of potash, chlorinated hydrocarbons, nitrobenzol and other nitro compounds of benzol and its homologs, sulphuric ether, radio active substances, x-ray, turpentine, etc. A pregnant woman should not be exposed to these substances despite the maintenance of an air concentration within "minimum permissible limites."				

[1] Job analysis should be made out by the employer (or his agent, such as the Personnel Director or Department Head).

(Bureau of Maternal and Child Health Form, Territorial Department of Health)

C. Progress Reports

1. Overall Report[1]

Name ______________________________

7th Mo. ______________________________

6th Mo. ______________________________

5th Mo. ______________________________

4th Mo. ______________________________

3d Mo. ______________________________

2d Mo. ______________________________

1st Mo. (Paste reports in proper space) ______________________________

HEALTH PROTECTION FOR WORKING PREGNANT WOMEN

Change type of work if unsafe for mother or baby.
Examination by physician once a month.
Stop working two months before birth of baby.

2. Monthly Report[2]

Name ______________ Date ________ Month of Pregnancy ____________

Next Visit Due ______________________________

May she continue to work? Yes ____________ No __________

According to her job analysis, should she change to other type of work now? __________

Explain which activities should be eliminated or reduced ____________
(Additional remarks on reverse side)

Physician ______________ Address ______________ Telephone ________

Send copy to Personnel Director or Department Head

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[1] Maternal and Child Health Form 30-B, Territorial Board of Health.

[2] Maternal and Child Health Form 30-C, Territorial Board of Health.

Appendix II

STATISTICAL TABLES

A. Maternal and Child Health Activities, Territory of Hawaii, by Islands, 1946 [a]

	Conference Centers		Crippled Children on Register [b]	Licensed Midwives
	Child Health	Maternal Health		
Total	133	47	2,072	32
Hawaii	45	9	450	4
Oahu	35	12	1,139	26
Maui	29	14	230	1
Kauai	18	6	193	1
Molokai	5	5	40	0
Lanai	1	1	20	0

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[a] Fiscal year. Data from *Annual Report of the Board of Health, Territory of Hawaii, 1946*, pp. 124, 127, and 129.

[b] Of Bureau of Maternal and Child Health and Crippled Children.

B. Live Births, Still Births, Illegitimate Births, Infant Deaths, and Maternal Deaths, Territory of Hawaii, 1946 [a]

1. Births and Deaths by Number, Rate, and Person in Attendance [b]

Item	Total Number	Rate	Percent Attended by				
			Physician		Midwife		Others
			In Hospital	At Home	At Lying-in Home	At Home	At Home
Live births	11,945	23.4[c]	92.1	1.4	0.5	3.7	2.3
Still births	176	14.7[d]	92.0	5.7	...	0.6	1.7
Infant deaths	341	28.5[d]	87.1	4.7	0.3	3.2	4.7
Maternal deaths	18	1.5[d]	100.0	...	...	...	...

[a] Fiscal year.

[b] Data from Annual Report of the Board of Health, Territory of Hawaii, 1946, pp. 44-49.

[c] Rate per 1,000 estimated population.

[d] Rate per 1,000 live births.

2. Birth and Death Rates by Racial or National Groups [a]

	Live Births [b]	Illegitimate Births [c]	Still-births [c]	Infant Deaths [c]	Maternal Deaths [c]
All	23.4	76.2	14.7	28.5	1.5
Hawaiian	18.5	237.6	29.7	89.1	19.8
Part-Hawaiian	49.3	114.4	13.6	30.4	0.3
Puerto Rican	30.6	160.1	17.8	17.8	...
Caucasian	10.1	74.2	20.6	24.6	1.7
Chinese	26.5	27.5	10.0	20.0	2.5
Japanese	26.5	48.6	14.5	23.2	1.6
Korean	27.2	72.9	5.2	31.3	...
Filipino	23.1	62.9	11.9	46.8	0.8
All others	40.1	180.0	...	40.0	...

[a] Annual Report of the Board of Health, Territory of Hawaii, 1946, pp. 43-51.

[b] Rate per 1,000 estimated population.

[c] Rate per 1,000 live births.

C. Comparative Birth and Death Rates, United States and Hawaii

1. Birth and Death Rate Trends, 1935-1946 [a]

Year	Births per 1,000 population		Infant deaths per 1,000 live births		Maternal deaths per 1,000 live births		Infant deaths from premature birth per 1,000 live births	
	U.S.	T.H.	U.S.	T.H.	U.S.	T.H.	U.S.	T.H.
1935	16.9	23.6	55.7	68	5.8	4.8[b]	15.4	N.A.
1940	17.9	22.2	47.0	45	3.8	3.0[b]	13.7	N.A.
1943	21.5	N.A.	40.4	37	2.5	2.3[b]	11.8	N.A.
1944	20.2	25.0[b]	39.8	30	2.3	1.9[b]	11.9	11.6[c]
1945[d]	N.A.	25.5	N.A.	30.3	N.A.	1.5	N.A.	12.0
1946[d]	N.A.	23.4	N.A.	28.5	N.A.	1.5	N.A.	10.8

[a] Data for 1935-1944 from Statistical Abstract of the United States, 1946, pp. 70 and 84. Data for 1945 from Annual Report of the Board of Health, Territory of Hawaii, 1945, pp. 35-37. Data for 1946 from Annual Report of the Board of Health, Territory of Hawaii, 1946, pp. 44-47.

[b] Fiscal year. From Annual Report of the Board of Health, Territory of Hawaii, 1945, pp. 36, 37, and 113.

[c] Fiscal year. From Annual Report of the Board of Health, Territory of Hawaii, 1944, p. 31.

[d] Fiscal year.

N.A. Not available in sources consulted (see footnote a/, above).

2. Birth and Death Rates, 1944-1945

Item	U.S. 1944 [a]	T.H. 1945 [b]
Number of male births per 1,000 female births	1,056	1,062
Percent of births attended by		
Physician (in hospital)	75.6	90.2
Physician (not in hospital)	17.7	2.0
Midwife	6.4	5.6
Other and not specified	0.4	2.2
Number of male infant deaths per 1,000 female infant deaths [c]	1,322	1,128
Deaths by age of death		
Per 1,000 live births		
Under 1 day	11.5	12.5
Under 1 month	24.7	21.0
Under 1 year	39.8	30.3
Per 1,000 population		
Under 1 year	43.3	40.8 [d]
1- 4 years	2.3	2.8 [d]
5-14 years	0.9	0.8 [d]
15-24 years	2.0	1.1 [d]
Deaths [c] per 1,000 live births by cause		
Premature births	11.9	12.0
Respiratory diseases	5.6 [e]	3.7
Injury at birth	3.6	3.3
Congenital malformations	5.1	3.2

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[a] Calendar year (Jan. 1, 1944 through Dec. 31, 1944). From Statistical Abstract of the United States, 1946, pp. 71, 74, 78, 83 and 84.

[b] Fiscal year (July 1, 1944 through June 30, 1945). From Annual Report of the Board of Health, Territory of Hawaii, 1945, pp. 32, 34, 35-37.

[c] Under 1 year of age.

[d] Territorial population for these age groups estimated from 1940 U.S. Census data and Board of Health estimated totals for January 1, 1945. It was assumed that all age groups in the population increased proportionately between 1940 and 1945.

[e] Pneumonia (all forms) and influenza.

D. Heart Disease

1. Physicians Concerned with Heart Disease, Hawaii, by Islands, 1946 a/

	Total b/	General Practice	Surgery	Obstet. and Gynec.	Pedi-at-rics	Int. Med.	Hema-tolo-gy
Territory of Hawaii	353	161	43	21	19	16	1
Oahu	263	99	38	19	17	15	1
Hawaii	44	31	3	1	2	1	0
Maui	28	17	2	1	0	0	0
Kauai	14	11	0	0	0	0	0
Molokai	3	2	0	0	0	0	0
Lanai	1	1	0	0	0	0	0
Others c/	0	0	0	0	0	0	0

a/ Data from Proposed Tentative Report of Hospital Survey and Planning, Territory of Hawaii (Territory of Hawaii, Board of Health, October 1947), Table 2, pp. 112-113.

b/ Including types not listed separately in this table.

c/ Niihau and Kahoolawe. See Geographical Note at beginning of this volume.

2. Deaths from Heart Disease per 100,000 Population, United States [a] and Hawaii [b], 1900-1946

Year	All Causes		Diseases of the Heart			
			U. S.		T. H.	
	U. S.	T.H.	Rate	Rank	Rate	Rank
1900	1719.1	N.A.	137.4	4	N.A.	
1910	1468.0	N.A.	158.9	1	N.A.	
1920	1298.9	N.A.	159.6	2	N.A.	
1930	1132.1	N.A.	214.2	1	N.A.	
1940	1074.1	N.A.	291.9	1	N.A.	
1942	1035.5	N.A.	295.2	1	N.A.	
1943	1089.5	618.6	318.3	1	115.9	1
1944 [c]	1064.7	613.2	315.4	1	118.7	1
1945 [d]	N.A.	574.3	326	1	110.8	1
1946	N.A.	600.6	N.A.		124.3	1

[a] All U.S. death-registration states. Data from *Statistical Abstract of the United States, 1946*, p. 79.

[b] Hawaiian data for fiscal years. From *Annual Reports of the Board of Health, Territory of Hawaii, 1945* (p. 32) and *1946* (p. 41).

[c] Among the U.S. death-registration states of 1900, the rate for all causes had fallen from 1719.1 (in 1900) to 1152.8 (in 1944); for all forms of heart disease it had risen from 137.4 to 398.3 in the 44-year period.

[d] U.S. data from a National Office of Vital Statistics release dated April 4, 1947, as quoted by *Health Instruction Yearbook, 1947* (compiled by Oliver E. Byrd, 1947), p. 18.

N.A. Not available in sources consulted (see above footnotes).

3. Percentage of Total Deaths Attributed to Heart Disease, United States and Hawaii, 1943-1946

Year	United States [a]	Territory of Hawaii [b]
1943	29.2	18.7
1944	29.6	19.3
1945	30.2	19.3
1946	N.A.	20.7

a/ Calculated from *Statistical Abstract of the United States, 1946*, p. 79, and *Health Instruction Yearbook, 1947*, p. 18. Data for U.S. death-registration states.

b/ From *Annual Reports of the Board of Health, Territory of Hawaii, 1945* (p.32) and *1946* (p. 41). Data for fiscal years.

N.A. Not available in above sources.

E. Deaths of Children Under Fifteen Years of Age, by Cause, Territory of Hawaii, 1945 [a]

Groups of Causes		Leading Subheadings in Each Group	
Cause	No. of Deaths	Cause	No. of Deaths
Diseases peculiar to first year	238	Prematurity	151
		Birth injuries	42
		Asphyxia and atelectasis	26
		Other	19
Diseases of respiratory system	84		84
Violent or accidental deaths	62	Automobile	22
		Drowning	13
		Mechanical suffocation	9
		Other	18
Congenital malformation	50	Heart	25
		Other	25
Communicable diseases	50	Tuberculosis	16
		Measles	15
		Tetanus	6
		Congenital syphilis	3
		Other	10
Other	90		90
Total	574		574

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[a] Fiscal year. From Annual Report of the Board of Health, Territory of Hawaii, 1945, p. 32 and p. 111.

INDEX

PUBLICATIONS OF THE POSTWAR PLANNING COMMITTEES ON HEALTH

Public Health Committee
of the
Chamber of Commerce of Honolulu

Healthful Housing for the Territory of Hawaii	February 1946
Public Health Administration and Organization for the Territorial Board of Health, Territory of Hawaii	May 1946
Hawaii's Sanitation Problems	September 1946
School Health Programs, Territory of Hawaii	December 1946
Communicable Disease Control, Territory of Hawaii	September 1947
Planning for Health through Community Health Education, Social Hygiene, Mental Hygiene and Nutrition	December 1947
Maternal and Child Health	January 1948
Health Services and Statistics	January 1948